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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/756,835

01/13/2004

Axel Knauff

KNAUFF-5

1419

20151 7590 11/29/2007
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EXAMINER

BARRERA, RAMON M

ART UNIT

PAPER NUMBER

2832

MAIL DATE

DELIVERY MODE

11/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/756,835

Applicant(s)

KNAUFF ET AL.

Examiner

Ramon M. Barrera

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6,8-14,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) 9,11 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,10,12-14 and 17 is/are rejected.
- 7) ☐ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 5-6, 10, 12, 13, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Offringa, et al.

Offringa's fig. 7 discloses a nonmagnetic nonconducting carbon fiber first carrier sleeve 20 (col. 5, line 1) inherently adjacent an air gap of a synchronous motor (brushless dc motor) having axially arranged magnets 4 attached (indirectly) to a side of the first carrier so that the first carrier is inherently provided between the air gap and the permanent magnets; the permanent magnets having a thickness at least twice the thickness of the carrier, with casting compound filling an intermediate space between neighboring permanent magnets (col. 4, lines 41-45). The prefabricated module shown in figs 5-7 is inherently attached to shaft 22 by material interconnecting engagement.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Offringa in view of Worley, et al.

Offringa discloses a second carrier 22 but does not disclose whether the second carrier is made of a soft magnetic material. Worley discloses a second carrier 18 made of soft magnetic material for the purpose of acting as a backiron to reduce the reluctance of the permanent magnet circuit. Since Offringa and Worley are both from the same field of endeavor, the purpose disclosed by Worley would have been recognized in the pertinent art of Offringa. It would have been obvious at the time the invention was made to a person having ordinary skill in the art for Offringa's second carrier to be made of soft magnetic material for the purpose of acting as a backiron to reduce the reluctance of the permanent magnet circuit.

5. Claims 1-3, 10, 12, 13, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worley, et al., in view of Offringa, et al.

Worley's figs. 4 and 6 discloses a rotor 16 for a synchronous motor [paragraphs 29,30] which turns relative to a stator 10 and includes a shaft 22 and a pre-fabricated module (figs. 4-5) sized for attachment as a unit to a circumferential portion of the shaft, wherein the module is constructed to include a first carrier 43 adjacent an air gap between the rotor and the stator, and axially arranged (47) plural permanent magnets (30,32) having a thickness at least twice the thickness of the first carrier which are attached (indirectly) to at least one side of the first carrier, so that the first carrier is provided between the air gap and the permanent magnets, further comprising a second soft magnetic carrier 18. The prefabricated module shown in figs 4-5 is inherently

attached to shaft 22 by material interconnecting engagement. At the top of fig. 5, casting compound fills an intermediate space between neighboring permanent magnets.

Worley discloses a first carrier 43 made of a corrosion resistant material but does not disclose whether the first carrier is also made of a nonconducting nonmagnetic material. Offringa discloses a first carrier made of a corrosion resistant nonconducting nonmagnetic material (carbon fiber reinforced resin) for the inherent purpose of protecting the underlying metallic materials from corrosion. Since Offringa and Worley are both from the same field of endeavor, the purpose disclosed by Offringa would have been recognized in the pertinent art of Worley. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Worley a first carrier made of a nonconducting nonmagnetic material, e.g., carbon fiber reinforced resin, for the inherent purpose of protecting the underlying metallic materials from corrosion.

Allowable Subject Matter

6. Claim 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

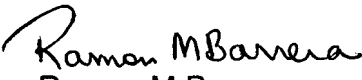
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramon M. Barrera whose telephone number is (571) 272-1987. The examiner can normally be reached on Monday through Friday from 11 to 5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ramon M Barrera
Primary Examiner
Art Unit 2832

rmb